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REVIEW OF THE PRACTICABILITY OF TARGETS IN THE INSPECTOR'S REPORT ON THE INQUIRY INTO THE EAST SUSSEX AND BRIGHTON & HOVE WASTE LOCAL PLAN

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ERM have been commissioned to provide independent advice on the practicability of the revised recycling and recovery targets proposed by the Inspector in his Report on the Inquiry into objections on the East Sussex and Brighton & Hove Waste Local Plan.

ERM have based this commentary and response upon a number of recent research and policy reports, and upon our own experience of working on recycling and recovery service delivery. We have been asked to consider best practice case studies, as an indication of what is realistic and achievable, and, within these examples, to focus our attention on a number of key issues, namely:

- *the varying definitions being used for recycling and recovery operations;*
- *the different waste streams being targeted;*
- *the use of incentives and penalties; and*
- *the financial implications of different approaches.*

The recommendations under consideration relate to WLP1(c), which, in the Second Deposit Draft, states:

“Proposals in the plan area will be assessed against, and shall contribute to the achievement of the criteria set out below. Proposals shall (c) form part of an integrated strategy for waste management and where appropriate contribute to meeting or exceeding the following targets for the Plan area:

- *recycling 20% of household waste by 2003;*
- *recycling 30% of household waste and recovering 40% of municipal waste by 2005;*
- *recycling 33% of household waste and recovering 50% of municipal waste by 2010;*
- *recycling 40% of household waste and recovering 67% of municipal waste by 2015 ⁽¹⁾ “*

The Inspector's recommendations are to: ⁽²⁾

...delete all the bullet points [in WLP1(c)] and substitute as follows:

(1) East Sussex and Brighton & Hove Waste Local Plan Second Deposit Draft April 2002.

(2) East Sussex and Brighton & Hove Waste Local Plan Inspector's report 2004, part 6, Policy WLP1(c):.

- by 2005, recycle or compost at least 25% of municipal waste and 40% of commercial and industrial waste; and recover at least 40% of municipal waste and 55% of commercial and industrial waste;
- by 2010, recycle or compost at least 35% of municipal waste and 50% of commercial and industrial waste; and recover at least 67% of municipal waste and 68% of commercial and industrial waste; and re-use or recycle at least 81% of inert waste;
- by 2015, recycle or compost at least 45% of municipal waste and 55% of commercial and industrial waste; and recover at least 80% of municipal waste and 75% of commercial and industrial waste.

The following sections discuss these proposed changes. Targets for 2003 will not be discussed, as these are now out of date. The Inspector appropriately recommends that these targets be removed.

1.2

CONTEXT

When considering the practicability of the Inspector's recommendations, it is important to bear in mind the extremely fluid nature of the policy and regulatory context at present. We are at a point in time when there is great uncertainty associated with a number of developments that impact directly on the level and definition of future recycling and recovery targets. A decision over revision of the targets in policy WPL1(c) should be informed by, *inter alia*, the potential impact of the following:

- the intended review of the national waste strategy, Waste Strategy 2000 ⁽¹⁾, in 2005, which will, in all likelihood set updated targets for individual waste streams;
- the prospect of further statutory Best Value Performance Indicator (BVPI) targets for household waste recycling and composting being set local authorities: currently there are remaining targets for 2005/06 only;
- related to the above, the government's response to the Strategy Unit Report (Waste Not, Want Not) ⁽²⁾ recommendation of higher recycling and composting targets, which stated that these would be inappropriate until the performance of local authorities in the target year of 2003/04 was known;
- the potential for the inclusion of the treatment of appropriate waste streams by anaerobic digestion in the calculation of BVPI82b, the indicator specifically referring to household waste composting;
- the recommendations of the Panel Report on the Examination in Public in October 2004 of proposed amendments to Regional Planning Guidance 9 (RPG9) ⁽³⁾, the Government's response to these recommendations and

(1) Waste Strategy 2000 England & Wales. Part1. DETR. May 2000.

(2) Strategy Unit. Waste Not Want Not. A Strategy for Tackling the Waste Problem in England. 2002.

(3) Regional Planning Guidance for the South East. March 2001. Government Office for the South East.

subsequent consultation, during which examination, the need for, and level of, targets was debated at considerable length;

- amendment to the Waste Framework Directive ⁽¹⁾, and to the revised national waste strategy, concerning the status of the incineration of waste as a 'recovery' route for waste, in the light of the 'Luxembourg' decision in the European Court of Justice (see *Section 1.6*); and
- related to the above, the possibility of Waste Strategy 2005 abandoning 'recovery' targets for municipal waste, their having been superseded by the Landfill Allowance Trading Scheme (LATS) targets set for local authorities under the Waste and Emissions Trading Act 2003 (the WET Act). ⁽²⁾

1.3 ASSESSMENT OF WASTE ARISING, STATUTORY OBLIGATIONS AND PROPOSED TARGETS

As part of this project, an Excel model has been produced to predict and analyse the effect, on actual tonnages, that the recycling and recovery targets proposed by the Inspector would have. The model allows comparison, over time, of the Inspector's targets with those set out in the original 2nd Draft Deposit Waste Local Plan (WLP).

Key points that arise from this work have been extracted and are highlighted in the text below. However, a full version of the model has also been provided to the East Sussex and Brighton & Hove Waste Planning Authorities for their use and information. Separate spreadsheets have been developed both for Municipal Solid Waste (MSW) and for Commercial and Industrial (C&I) Waste.

1.4 AN ASSESSMENT OF THE PRACTICABILITY OF THE INSPECTOR'S RECOMMENDED RECYCLING AND RECOVERY TARGETS – MUNICIPAL SOLID WASTE (MSW)

The Inspector proposes an increase in most of the targets set in the WLP for household and for municipal waste. ⁽³⁾

Table 1.1 compares these targets.

(1) Waste Framework Directive.75/442/EEC

(2) Waste and Emissions Trading Act. 2003. HMSO.<http://www.hmso.gov.uk/acts2003/20030033.htm>. This Act implements the Landfill Directive in the UK.

(3) Household waste is waste from private households and is collected by the local authority or its contractor. It also includes waste deposited at Civic Amenity Sites or Household Waste Recycling Centres, and bulky waste collected from private households. Municipal Solid Waste (MSW) includes all household waste, **plus** any other wastes collected by the local authority or its contractors, such as commercial waste from shops and smaller trading estates, municipal parks and garden waste, and beach cleansing waste.

Table 1.1 Comparison of WLP1(c) Targets for Household & Municipal Waste

Target Date	Recycling/Composting		Recovery	
	2 nd Deposit Draft	Inspector	2 nd Deposit Draft	Inspector
2005/6	30% household ^(a)	25% MSW ^(b)	40% MSW	40% MSW
2010/11	33% household	35% MSW	50% MSW	67% MSW
2015/16	40% household	45% MSW	67% MSW	80% MSW

(a) "Household" indicates household waste recycling and composting
(b) "MSW" indicates municipal solid waste recycling and composting

It is notable that the 2nd Draft Deposit Waste Local Plan surpasses the expectations of the national policy and regulatory framework, see *Section 1.4.1*. The WLP had agreed recycling and recovery targets that exceed those in the national waste strategy and those statutory BVPI targets set for individual local authorities.

1.4.1 Household Waste or Municipal Solid Waste Targets?

Significantly, the Inspector recommends a move away from **household** waste recycling targets to **municipal** waste recycling targets. There is a fundamental difference between the two; and it is critical that its implications are not underestimated. The shift has the following important implications:

- targets will no longer be in line with those within the National Waste Strategy ⁽¹⁾ and the statutory Best Value Performance Indicator (BVPI) standards for 2005/6 placed upon local authorities, which specifically focus on household waste. The Plan would therefore not explicitly reflect the following targets:

1. those set by the Government and the National Assembly in Waste Strategy 2000 for England and Wales, viz.:

- to recycle or compost at least 25% of **household** waste by 2005;
- to recycle or compost at least 30% of **household** waste by 2010;
- to recycle or compost at least 33% of **household** waste by 2015.

2. the following BVPI targets (BV82a & BV82b) have been established for 2005/06 ⁽²⁾:

- Brighton and Hove Council - to recycle or compost 30% of **household** waste; and
 - East Sussex County Council - to recycle or compost 27% of **household** waste.
- irrespective of the target rate, local authorities will need to recycle or to compost an significant additional tonnage of material in order to meet the

(1) Waste Strategy 2000 England and Wales, Part I. Page 20-21.

(2) www.defra.gov.uk/environment/waste/management/guidance/mwms/10.htm

target because MSW includes other waste streams besides household waste. ⁽¹⁾

- recycling of non-household municipal waste will be double counted under the MSW and proposed C&I targets. ⁽²⁾

Table 1.2 Comparison of Recycling/Composting Targets for MSW

	2 nd Deposit	Inspector	South East Strategy Draft (2003) ⁽³⁾	South East Submitted (2004) ⁽⁴⁾	Waste Strategy 2000	Waste Not Want Not ⁽⁵⁾
Waste Type	Household	MSW	MSW	MSW	Household	Household
2005	30%	25%	25%	30%	25%	-
2010	33%	35%	35%	40%	30%	35%
2015	40%	45%	45%	50%	33%	45%

However, the adoption of objectives specifically for MSW does simplify the setting of targets for waste planning purposes. It also allows recycling and composting achievement to be linked more directly to:

- requirements of the WET Act which are based on biodegradable municipal waste rather than household waste; and
- targets in the Regional Waste Strategy ⁽⁶⁾, which are also based on MSW rather than household waste.

1.4.2 Recycling Targets

The Inspector has recommended a lower recycling target of 25% MSW for 2005/6. This target is below that set in the WLP, and more importantly, below the **statutory** BVPI recycling targets that are placed on both East Sussex and Brighton & Hove Councils.

The Inspector has recommended higher targets for recycling and composting in 2010 and 2015 than in the WLP. The recommended changes would bring the WLP targets into line with those in the draft South East England Regional Waste Strategy. This draft was in place during the Inquiry in May to October 2003. However, the Regional Waste Strategy has now been submitted to Government, and the targets therein have been revised. ⁽⁷⁾ However, it should

(1) WLP Background Paper 1 for East Sussex & Brighton & Hove state that 95% of MSW is household waste.

(2) The Environment Agency C&I waste survey (1998/9) includes all C&I waste including non-household MSW

(3) South East England Regional Assembly (March 2003) No Time to Waste – Regional Waste Management Strategy Consultation Draft.

(4) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste. Policy W6.

(5) Strategy Unit (2002) Waste Not Want Not - A strategy for tackling the waste problem in England.

(6) South East England Regional Assembly (2004) Proposed Alternations to Regional Planning Guidance, South East – Regional Waste Management Strategy: No Time to Waste

(7) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste.

be noted however that the Regional Waste Management Strategy and amendments to RPG9 is still draft and is still subject to the Examination in Public held in October 2004. Its targets are subject to revision following the recommendations of the examination Panel.

The Inspector's targets are inconsistent with the suggested performance levels set out in The Strategy Unit's *Waste Not Want Not* Report. ⁽¹⁾ This is because they relate to MSW rather than household waste. It is important to note that *Waste Not Want Not* was written to provide recommendations to government, and is not itself government policy, as its foreword makes clear. The 35% and 45% levels are not statutory targets, but rather measures of performance in other areas:

"The key success measures for the strategy in this report, if taken forward by government, will be:... a target of at least 35% of household waste being composted or recycled by 2010 and at least 45% of household waste being composted or recycled nationally by 2015;"

The Government, in its response to the *Waste Not Want Not* report, highlighted that increasing household waste recycling to 35% and 45% would require a significant investment in resources:

"...we recognise that national recycling rates higher than the current targets are both possible and desirable. We will review in 2004 the national recycling targets in light of the progress made by local authorities in meeting their 2003/04 targets...In setting targets for local authorities, the Government takes into account resource implications. It is Government policy that any additional costs to the local authorities arising from new initiatives such as targets must be fully funded, to avoid a burden being placed on the council tax payer. ⁽²⁾"

Achieving the Inspector's proposed 35% and 45% targets for MSW, without any additional funding being made available to the Authorities, is therefore likely to place a major drain on resources and potentially to the council tax payer. Without clear assurances that this funding would be forthcoming, it would be premature to adopt such higher targets.

The targets will also be challenging to achieve for a range of other reasons:

- significant additional tonnages of materials will need to be collected to achieve the recommended increases in the percentage of MSW recycled and composted. An increase in recycling rates will require both:
 - substantial investment in the services and infrastructure available, for example, improvements may include examining opportunities for expanding existing services to a greater number of people, or increasing the range of materials collected; and
 - further funding of initiatives to encourage public engagement and to raise participation rates.

(1) Waste Not Want Not. A Strategy for Tackling the Waste Problem in England. Strategy Unit. November 2002.

(2) Defra (2003) Government response to Strategy Unit report 'Waste Not, Want Not'

- more difficult to reach households will need to be included on separate collection rounds, which raises logistical and organisation issues for the service:
 - it is often more difficult to provide door step recycling services to households in high rise flats and estates due to the density of the housing. It may be more appropriate to investigate alternative recycling collection arrangements eg setting up recycling points; and
 - rural households are sometimes more difficult to reach, due to their isolated location, and may require a separate collection in order that recycling services can be provided, again requiring increased investment.
- materials that are more difficult to separate and that are more expensive to collect will need to be targeted, and specific problems with these addressed, for example:
 - plastic is difficult to recycle because it has a low bulk density, which results in high transportation and collection costs. Furthermore, the reprocessing market currently only accepts specific types of plastic, and it is difficult to separate out the types of plastic required; and
 - kitchen waste could be separated out for composting as an alternative to disposal to landfill. However, the recent Animal By-Products Regulations have placed new restrictions on the handling and use of food-waste based materials, which makes composting of the material less attractive as it is governed by strict rules.
- the targets recommended exceed current good recycling practice in the UK and many examples of good practice overseas. This is explored further below;
- higher rates of recycling and composting are often supported by introduction of a separate collection for green waste or for kitchen and garden waste. However, such collection systems have been shown to increase waste production, since householders set out wastes that would otherwise remain in their gardens, rendering the initiative somewhat counter-productive; and
- an increase in the engagement of the general public in recycling services and in participation and separation rates will be needed, which will require investment in awareness raising initiatives. This is explored further in *Section 1.4.4* below. Furthermore, it may prove more difficult to persuade some groups to recycle. For example, low or non-recyclers are not as receptive to communication and information designed to encourage people to participate in recycling services.

1.4.3

The Difference Between Tonnage and Percentage Targets

The Inspector has recommended a 2% increase in the 2010 target and a 5% increase in the 2015 target. These increases are small numerically. However, coupled with the shift from the household waste basis of the target to an MSW basis, and with anticipated waste growth, these increases equate to recycling an additional 15,000 tonnes in 2010. ⁽¹⁾ This is well beyond the level envisaged within the WLP, see *Table 1.3* below. In 2015, the additional material required to be recycled amounts to 30,000 tonnes. It should be noted that both the WLP and the Inspector's targets exceed those set in England's current Waste Strategy. ⁽²⁾ The increases are also shown graphically in both *Figure 1.1* and *Figure 1.2*.

Table 1.3 ***Comparison of Tonnages needed to Meet Recycling Targets*** ³⁾

	2nd Deposit Draft	Inspector's Recommendations	Waste Strategy 2000
	Household Waste (tonnes)	Municipal Solid Waste (tonnes)	Household Waste (tonnes)
2005	112 535 (30%)	98 715 (25%)	93 779 (25%)
2010	131 377 (33%)	146 673 (35%)	119 433 (30%)
2015	168 443 (40%)	199 472 (45%)	138 965 (33%)

(1) Based on Background Paper 1 assumption of 95% of MSW being Household.

(2) *Waste Strategy 2000* for England and Wales. Part 1. May 2000. Page 21.

(3) Based in MSW growth rate assumed in Background Paper 7.

Figure 1.1 Comparison of Inspector's Proposed Targets and those in the 2nd Draft Deposit WLP

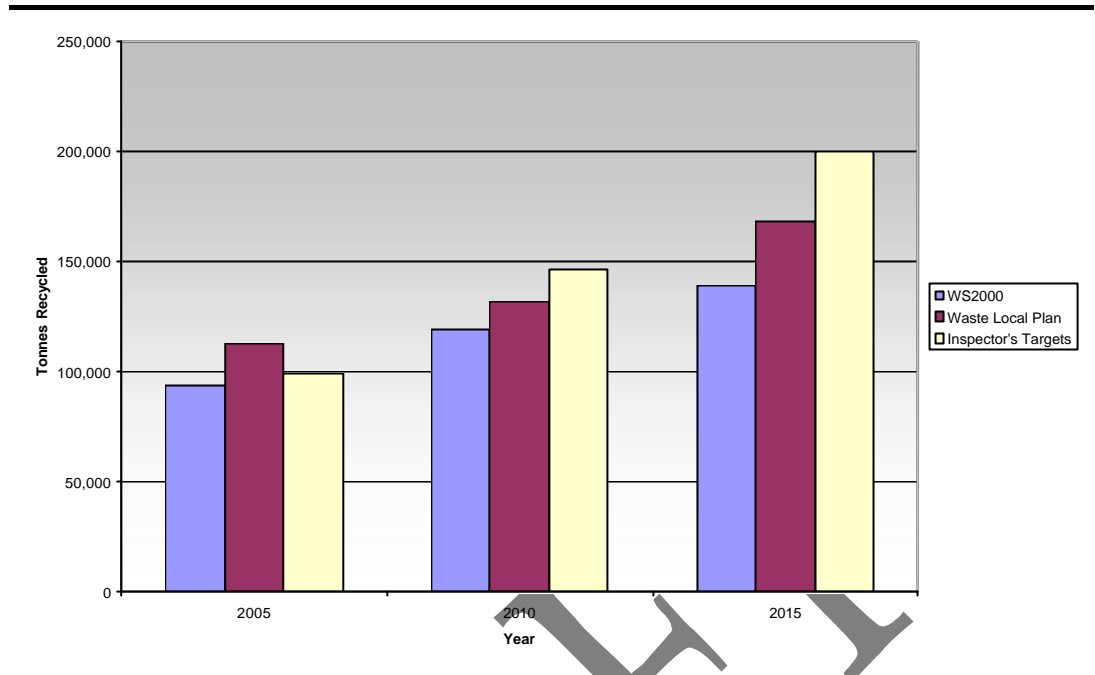
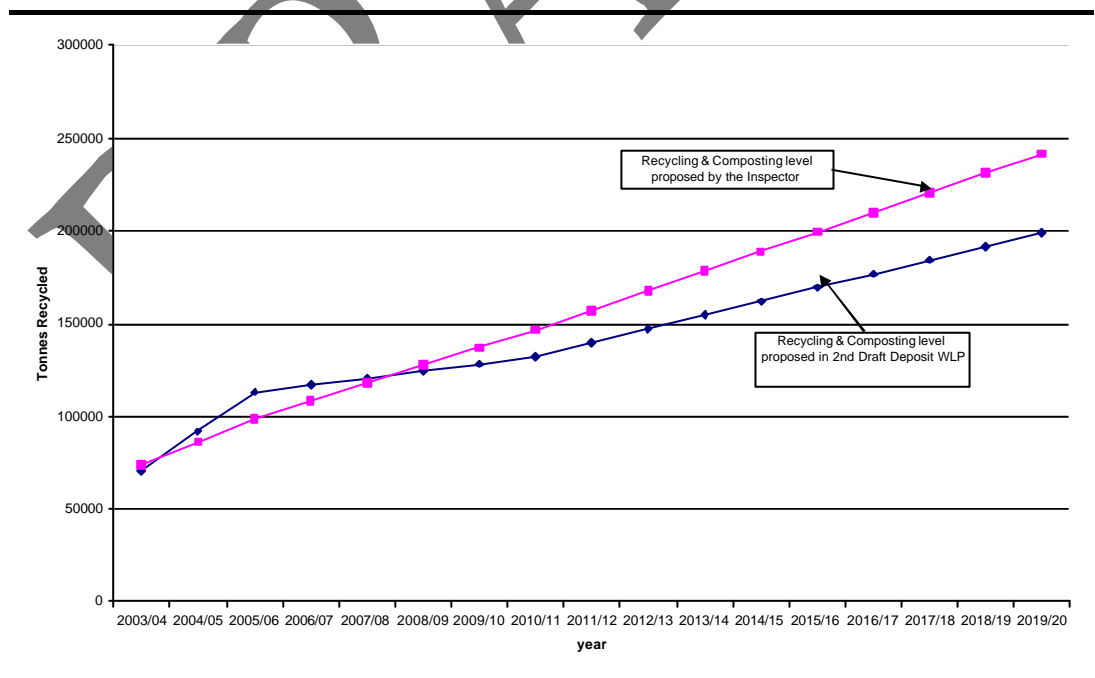


Figure 1.2 Comparison of Recycling Tonnages Required to Meet the Inspector's Proposed Targets and those in the 2nd Draft Deposit WLP



These increases are not marginal, and represent a requirement for a major change in performance. Continuing increases in recycling rates become progressively more difficult to achieve, because the 'low hanging fruit' of easy to separate materials and enthusiastic recyclers have become exhausted. Further effort on recycling achieves diminishing returns, and makes

delivering a change from 40% to 45% considerably more difficult than delivering one from 20% to 25%.

The changes will require Waste Collection Authorities to provide further investment in their recycling services and the infrastructure that supports them considerably beyond that envisaged from the targets set out in the WLP. This additional investment might be directed into existing services, for example by expanding collection rounds to provide recycling services in flats or isolated rural households. Additional funding may also be required to provide supplementary recycling services, or to increase the range of materials that are collected.

Furthermore, increasing public participation in recycling services, and the separation rates achieved by participating members of the public, will be fundamental to achieving the higher recycling rate. This cannot be achieved without additional funding of awareness campaigns.

1.4.4

Difficult to Reach Areas and Materials

The East Sussex and Brighton & Hove Authorities, like most in the UK, have addressed recycling targets by rolling out collection to households that are easier to reach, and by targeting those materials that are easier to collect. This strategy has delivered the current levels of recycling performance (see

Table 1.4). To increase performance beyond 30% will require:

- participation by difficult to access households (eg flats);
- households that do not normally participate in recycling to be encouraged to do so on a regular basis and households that already participate would have to do so more consistently;
- a higher proportion of those materials that are difficult to sort out, to collect and to market to be targeted, for example, waste plastics; and
- limited contamination levels to be achieved, in order that materials are separated and sorted effectively. Even well-meaning residents who do not know or understand the proper methods of participation may cause contamination. For example, contaminating white paper collections with colour paper or cardboard will contaminate the mix and result in a weaker strength of paper and possible discolouring. Contaminated paper may be then rejected from paper mills for this reason.

A successful recycling service is dependant upon:

- the sophistication of the actual scheme put in place;
- the number of people it serves;
- how many people actually participate in the scheme; and
- the actual capture rate of the recyclable materials.

Box 1.1 below provides an example of the minimum levels of performance that would be required in order for the Inspector's target of 45% to be achieved:

- on average, 87% of households and businesses would need to be included in the recycling collection service;
- on average, 87% of those served would need to participate **all the time**; and
- on average, 87% of all the recyclable material generated by those served would need to be placed into recycling containers (eg paper, glass, textiles, cans etc.)

Of course, different combinations of the percentages of households served, numbers participating and materials captured would also provide 45% recycling. For example, if 100% of households are served, then only 81% of residents will need to participate and provide 81% of their recyclables.

These parameters represent extremely good practice for recycling collection services. They are not currently being achieved on a large scale such as East Sussex and Brighton & Hove. A rate of 60% participation is more common in those Authorities that are currently attaining the highest levels of recycling. Clearly, such an aggregate level of performance, across a wide area, will be extremely difficult to attain.

Box 1.1**Performance Needed to Achieve 45% Recycling Rate**

% Recyclable material in the waste stream 68% (1)	X	% of Households served 87%	X	% Households participating in the scheme 87%	X	% of material captured 87%	=	Overall Recycling Rate 45%
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(1) WRAP, Dr Julian Parfitt (2002) Analysis of household waste composition and factors driving waste increases. Annex to Strategy Unit (2002) Waste Not Want Not.

Table 1.4 East Sussex and Brighton & Hove Kerbside Recycling Systems (2004) ⁽¹⁾

Authority	Households Served	Materials Collected at Kerbside	Collection Method	Recycling Rate 2003/4
Brighton & Hove City Council	36 000	Newspapers & magazines, glass, cans.	Box	16%
	40 000	Only Newspapers & magazines	Box	
Eastbourne Borough	36 000	Newspapers & magazines, cans, glass	Box	13.8%
Hastings Borough	26 000	Newspapers & magazines	Box	10.1%
Lewes District	22 000	Newspapers & magazines, cans, foil, plastic bottles	Box	15.3 %
Rother District	25 000	Newspapers & magazines	Box	11.8%
Wealden District	27 000	Newspapers & magazines, cans, foil, plastic bottles.	Box	29.3%
		Green garden & Cardboard	Wheeled Bin	

NB: This table does not include waste recycled at Household Waste Recycling Sites

The increasing difficulty in improving recycling levels beyond the 'low hanging fruit' is the reason why many local authorities hit a threshold in recycling beyond which performance plateaus and there are significant diminishing returns on increased activity. The Resource Recovery Forum notes this characteristic with US Schemes:

"Many US states appeared to have reached a plateau at a diversion rate of 35 to 37%, and moving beyond this rate requires system changes which few administrations are willing to take" ⁽²⁾

For Waste Disposal Authorities (WDAs), such as East Sussex County Council, the recycling rate is calculated on the proportion of recyclable waste collected at Household Waste Recycling Sites (HWRS). The recycling rate for East Sussex is currently 21.9%. ⁽³⁾

Many WDAs appear to have difficulty raising their recycling rate beyond this level. For example, Dorset County Council's recycling rate has remained at around 26% for the past two years, and Hampshire County Council's recycling rate has also remained at around 26% for the past three years. ⁽⁴⁾ Both Authorities are regarded as examples of best practice in terms of recycling. Although higher rates are achieved elsewhere, this is only achieved

(1) Information provided by East Sussex County Council, Waste Management Team. September 2004.

(2) David Davies for Resource Recovery Forum (2004) High Diversion of MSW: is it achievable.

(3) Taken from 2003/4 BVPI spreadsheet from East Sussex.

(4) Source: BVPI targets for key years.

through significant investment in updating sites and in providing incentives to operators.

1.4.5 **Best Practice**

The recycling rates suggested by the Inspector far exceed current UK best practice. *Table 1.5* summarises the performance of some of the higher performing Waste Disposal Authorities, including those highlighted for Brighton & Hove by CERNO in 2001. This shows that most high performing Authorities achieve recycling rates of between 20% and 30%. Inevitably, with 'low hanging fruit' already targeted, increasing recycling rates are likely to reap diminishing returns.

Table 1.5 Authorities with High Recycling Rates*

Rank	Authority	Cerno (2001) ^(b)	BVPI 2002/3 ^(a)
1	Isle of Wight		31%
2	Windsor & Maidenhead		29%
3	Dorset County Council		27%
4	Bath & N E Somerset		26%
5	Hampshire County Council	25%	26%
6	Bournemouth	26%	25%
7	Cambridgeshire County Council		24%
8	Buckinghamshire County Council		24%
9	Wokingham		24%
10	Essex County Council		23%
21	East Sussex County Council		20%
46	Brighton & Hove		15%

(a) extracted from ODPM BVPI figures for 2002/3, accessed @ www.bvpi.gov.uk

(b) extracted from authority's website.

* Table includes unitary authorities and county councils, excludes metropolitan authorities, London boroughs and district councils.

It is important to note that many of the very high recycling rates frequently quoted are those of small Waste Collection Authorities, rather than larger, composite Waste Disposal Authorities. This is the case with Daventry, which is the highest performing authority in the country, with a recycling rate of 44%. However, Northamptonshire County Council, of which Daventry is a part, only has a combined recycling rate of 18%.⁽¹⁾

It is generally accepted that such high rates of recycling can be achieved in a small and select area, provided sufficient resources are available. However, it is difficult to extend such performance to a large area, particularly with a

(1) www.BVPI.gov.uk

combination of urban and rural settings. ⁽¹⁾ Experience in Germany has confirmed that the higher recycling figures of 40 – 45% have only been achieved in low-density rural areas. ⁽²⁾ Sustaining exceptional performance at a 45% level across the five Districts of East Sussex and Brighton & Hove would therefore be extremely challenging, and would require a high level of co-operation between all the authorities.

The 2015 target recommended by the Inspector also matches the best performance delivered by recycling systems in continental Europe. Leading municipalities are achieving levels of 45% as a maximum. ⁽³⁾ International good practice is often identified as a template or goal for UK systems. However, definitions of MSW and recycling are often broader in these cases. For example, Los Angeles in the USA is often quoted as an example of achieving a 60% MSW recycling rate. In this case, a number of materials are counted towards the recycling rate that are excluded from the calculation of the rate in the UK, such as construction and demolition waste and sewage sludge. ⁽⁴⁾ In Canberra, another city with a high overall rate, nearly 30% of the recycled material is construction and demolition waste. ⁽⁵⁾

1.4.6

45% Recycling

Several recent studies examining other European and North American recycling programmes ⁽⁶⁾ ⁽⁷⁾ have concluded that 40-45% recycling is a typical **maximum** for a mature programme without additional central government intervention (eg direct charging of households). With significant structural changes, such as incentives to reduce production of waste streams such as packaging, plastic bags and other materials, higher levels of around 62% are believed potentially to be achievable. ⁽⁸⁾

There is no evidence that these levels have yet been achieved across an area the size of East Sussex and Brighton & Hove. Furthermore, it is questionable whether rates of this order can be attained without central Government intervention or the introduction of residual waste treatment technologies that are counted as contributing towards recycling rates (eg as has been suggested concerning source separated anaerobic digestion, see *Section 1.2*). Such high

(1) Aylesford Newsprint (2000) Achieving recycling targets "There are small communities in the UK (e.g. Wye, near Ashford in Kent) and overseas where higher diversion rates have been achieved. Praiseworthy although this is, there are usually exceptional local reasons underlying such performance. It would be mistaken to assume that such performance could be achieved consistently across the broad mass of population in urban and metropolitan Britain."

(2) David Davis, Smoke & Mirrors in Waste Management - Exploding some myths. Waste Management World. ISWA. May-June 2003.

(3) "International experience from countries in Europe and North America with successful, large-scale recycling programmes for municipal waste demonstrates that the achievement of high recycling and composting rates much in excess of 40% is very much the exception rather than the Norm. Aylesford Newsprint (2000) Achieving recycling targets.

(4) David Davis, Smoke & Mirrors in Waste Management - Exploding some myths. Waste Management World. ISWA. May-June 2003.

(5) <http://www.defra.gov.uk/environment/waste/intrecex/index.htm>

(6) Aylesford newsprint (2000) Achieving Recycling Targets.

(7) David Davies for Resource Recovery Forum (2004) High Diversion of MSW: is it achievable.

(8) Hogg, D., Mansell, D., 2004, Maximising Recycling Rates: Tackling Residuals, research report on behalf of the Community Recycling Network.

levels would also be dependant on dramatically increased investment and commitment from the Waste Collection Authorities.

Given the evidence available from elsewhere in the UK and abroad, the higher targets suggested for recycling and composting by the Inspector are achievable in certain circumstances. Nevertheless, they are sparsely demonstrated and equal or exceed good practice that is elsewhere seen on only a small scale. This gives rise to reasonable concern that the experience could not be transferred to East Sussex and Brighton & Hove on the timescale suggested. If adopted, the targets will require:

- major investment by the authorities;
- the full cooperation by the public: even with a high level of communication there can be a risk of low participation rates (due to inactivity by residents not immediately disposed to changing behaviours, or where there is a rapid turnover in the community) and also a risk of apathy and drop-off; and
- potentially the introduction of residual waste treatment technology that would contribute to recycling rates.

The 2015 target for recycling, recommended to be set at 45%, will therefore be very difficult indeed to achieve.

It is important that the Waste Local Plan is deliverable. Indeed, the Inspector has identified a need for targets to be realistic and achievable. It is questionable that the targets recommended by the Inspector meet these criteria. The Inspector's recommendation for a 2015 MSW recycling target, in particular, should be considered very carefully given the comments made in this report on the practicability of such rates.

1.5

RECOVERY TARGETS

The Inspector has also recommended increased targets for the recovery of MSW in 2010 and 2015. ⁽¹⁾ The Inspector has not clearly defined how the percentage recovered should be calculated. There are number of different methods for calculating the percentage of waste recovered. The 2nd Draft Deposit WLP assumes 'recovery' to mean the actual percentage of waste being diverted from landfill.

The Inspector was aware of the WLP's calculations and refers to the plan's aim to divert waste from landfill ⁽²⁾ and thus for the purposes of this report, and to ensure consistency with the WLP, it is assumed the Inspector's assumptions regarding calculating the recovery rate correlate with the WLP.

⁽²⁾ East Sussex and Brighton & Hove Waste Local Plan Inspector's report. 2004. Page 45.

The suggested targets exceed those set by the South East England Regional Assembly (in both the draft and the submitted strategies) and those within the National Waste Strategy (*Waste Strategy 2000*). *Figure 1.3* also shows how these suggested targets far exceed the statutory requirements for diversion from landfill set through statutory recycling standards (BVPIs) and the Landfill Allowance Trading Scheme (LATS) that have superseded the role of Recovery targets. These instruments themselves are aimed at meeting the demands of Article 5 of the Landfill Directive. The Directive is the prime driver of change in waste management arrangements in the UK.

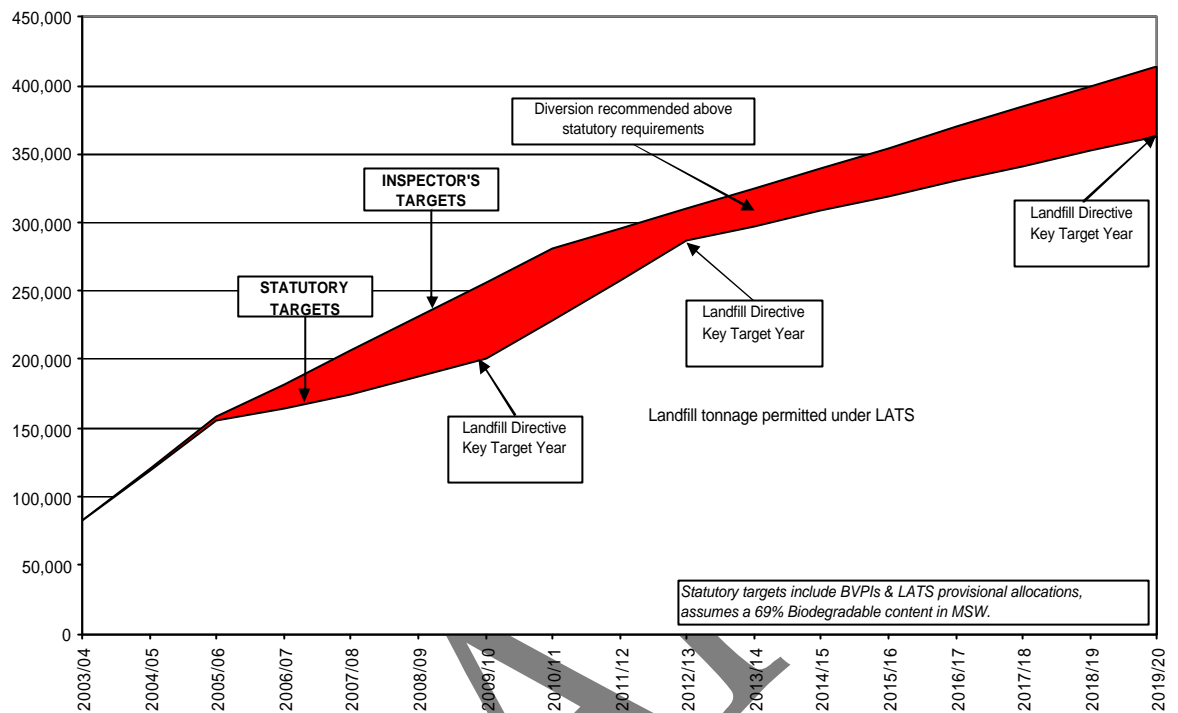
Table 1.6 Comparison of Recovery Targets for Municipal Waste

	2nd Deposit	Inspector	South East Strategy Draft (2003)⁽¹⁾	South East Submitted (2004)⁽²⁾	Waste Strategy 2000
Waste Type	MSW	MSW	MSW	MSW	Household
2005	40%	40%	40%	35%	40%
2010	50%	67%	57%	52%	45%
2015	67%	80%	79%	74%	67%

(1) South East England Regional Assembly (March 2003) No Time to Waste – Regional Waste Management Strategy Consultation Draft.

(2) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste. Policy W6.

Figure 1.3 Comparison of Inspector's Recovery Targets with Statutory Diversion from Landfill Required (BVPIs & LATS)



The Inspector re-enforces the need to include high recovery targets in the Plan, in order to conserve landfill void space⁽¹⁾, beyond the reductions in landfill that will be required through the Landfill Directive. These are significantly higher in 2010 and 2015 than the targets set in the South East Regional Strategy (67% rather than 52% in 2010 and 74% rather than 80% in 2015, see Table 1.5).

The Inspector's suggested target for 2010 brings forward the 67% recovery rate target that was set in the Waste Local Plan for 2015. This will require some 70,000 tonnes of additional recovery capacity to be provided within six years. This is an extremely short lead-time. Furthermore, the extra capacity is of the order of another facility for the Authority. The tonnage capacity required is equivalent to a large anaerobic digestion plant or a small energy from waste facility. The periods required for procurement of contracts for MSW management, for project development, for planning, for construction and for commissioning in total would be expected to exceed this timescale. Again, this would also require significant additional funding from the authorities.

The target of 80% recovery by 2015 is likely to be particularly difficult to achieve. This is a very high level of recovery. It allows little or no room for

(1) Para 5.50 "...the critical shortage of landfill voidspace, and the great difficulty in finding acceptable additional capacity...give added urgency to increasing recovery rates above those required to satisfy the Landfill Directive."

the introduction of recovery technologies that cannot take mixed MSW (such as anaerobic digestion), and therefore constrains the options open to the authorities for the diversion of biodegradable municipal waste from landfill.

More importantly, however, is the question of whether setting a recovery target for the area is now helpful. Many UK authorities are now looking towards considering a Landfill Diversion target. This fits closely with the Landfill Directive aim of reducing the landfill of biodegradable municipal waste and also with the requirement to conserve voidspace in many areas.

A Landfill Diversion target would also enable East Sussex and Brighton & Hove to address the potential risk of certain recovery technologies (conventional combustion in particular) being re-classified as 'disposal'.⁽¹⁾ Nevertheless, until such time as the revision of the Waste Framework Directive and Waste Strategy 2005 are completed, and regional targets, LATS allowances and the details of the LATS trading scheme are finalised, as discussed in *Section 1.2*, it would be premature to aim to develop such targets.

1.6

AN ASSESSMENT OF THE PRACTICABILITY OF THE INSPECTOR'S RECOMMENDED RECYCLING AND RECOVERY TARGETS – C&I WASTE

The Inspector has recommended that targets for commercial and industrial (C&I) waste management be introduced in the Plan.

The Inspector's suggested recycling targets match those set out in the Regional Waste Strategy (see *Table 1.7*). However, recovery targets, particularly those for 2010, are somewhat higher (68% rather than 65% in 2010 for example). The rationale behind setting targets is to help preserve landfill void space, which is currently in short supply.⁽²⁾ *Table 1.7* summarises these recommended targets.

Table 1.7 Inspector's Targets for Commercial and Industrial Waste

	Inspector's Targets		South East Submitted (2004) ⁽³⁾	
	Recycling/ Composting	Recovery	Recycling/ Composting	Recovery
2005	40%	55%	40%	54%
2010	50%	68%	50%	65%
2015	55%	75%	55%	75%

(1) A recent European Court of Justice case ruled that Municipal Incineration is a form of disposal for packaging waste, rather than recovery. It is likely that this interpretation may be made with other waste streams. C-458/00.

(2) Inspector's report, para 5.72: "As with municipal waste, setting high recycling and recovery targets for commercial and industrial waste is particularly important for East Sussex and Brighton & Hove, because of the critical shortage of landfill void capacity, existing or identified".

(3) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste. Policy W5.

The homogenous nature of many C&I waste arisings (eg separate streams of cardboard, plastics etc.) generally helps to provide opportunities for higher levels of recycling amongst these waste streams. Current recycling levels for these waste streams in England and Wales are in the region of 37% ⁽¹⁾. With sufficient investment and incentives, increases to 50% and 55% should be feasible, although the authorities have little leverage on businesses, and the principal instrument that would enable such an advance is the landfill tax, increases in which are the aegis of the Treasury.

The current recovery rate for C&I waste is 41% in the UK. ⁽²⁾ Some increase in these figures could be achieved. However, it is believed that meeting a 75% target will be particularly difficult, given that a large proportion of C&I waste may not be feasible to recover using normal means (eg bulky items, contaminated and mixed waste streams).

The Inspector does recognise that East Sussex and Brighton & Hove have limited influence over the management of C&I waste. There is obviously some role for consideration of how C&I waste is managed within the Waste Local Plan, as highlighted in the South East Regional Strategy:

“The county level will often provide an appropriate level for sub-regional planning all waste streams and management methods, particularly as waste local plans and frameworks will form the basis of more local planning for the provision of waste management and processing facilities ⁽³⁾”

It is agreed that significantly more waste does need to be diverted away from landfill and recovered in some form, and facilitating appropriate development for this is something the Plan should embrace. However, it is debatable whether setting blanket targets is the most appropriate way in which to encourage sustainable waste management at this level, for four reasons, as follows.

First, applying targets will not necessarily encourage waste management companies and others to establish commercial and industrial waste recycling and recovery facilities in the area. Industry experience suggests that long-term contracts for waste management services, or an overriding economic case for investment is required to ensure new facilities are constructed. Contracts for the management of C&I wastes seldom exceed 1-2 years.

If the desired outcome is to promote the construction of more recycling and recovery capacity for C&I waste, then perhaps a more appropriate approach would be to adopt a policy to encourage co-location of MSW and C&I facilities, in line with the Submitted Regional Waste Strategy:

(1) The Environment Agency's 1998 survey of commercial and industrial waste indicates that a total of 37.4% of material is currently reused or recycled.

(2) Recycling, reuse, thermal treatment and other recovery combined. Source: The Environment Agency's 1998 survey of commercial and industrial waste.

(3) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East Regional Waste Management Strategy. No Time to Waste. Policy W5. Paragraph 2.29.

“... co-location of different facilities and activities, for example in integrated waste management developments or resource recovery parks, may also enable a more integrated approach to be developed and provide for additional capacity to enable co management of both municipal and commercial and industrial waste...” (1)

Indeed, Policy WP1(d) of the Second Draft Deposit Waste Local Plan encourages the co-location of waste management facilities.

Such facilities are common in continental Europe, so much so that the ‘municipal’ waste definition often includes a large proportion of commercial and industrial material accepted at such facilities.

Second, even if dedicated C&I facilities are constructed, waste producers and waste management companies may not necessarily use these facilities. Unlike MSW, C&I waste is highly mobile, with users seeking out the lowest transport costs and lowest cost facilities in the area. The worst possible scenario would be to ensure that recycling facilities were provided in East Sussex and Brighton & Hove, but that the more expensive nature of these facilities meant that landfilling the material outside the county was more attractive.

Third, C&I recycling is generally undertaken in a different way to MSW recycling. Often no sorting facilities are required, as materials can be more easily segregated in bulk at source (eg plastics from supermarkets, cardboard from clothes retailers etc.). In the case of some materials, no intermediate processing is required before materials are sent to the reprocessor.

East Sussex and Brighton & Hove do not need, and could not support, the full range of recyclables processors within the County area: such facilities are generally required at regional or even national level. By contrast with regional-scale strategies, blanket targets are not likely to help to guide the development of appropriate recycling facilities at a County level, as only a proportion of the overall regional network of recycling facilities will be needed within East Sussex and Brighton and Hove. It would be more appropriate to work closely with SEEDA and WRAP to evaluate which types of facility are required in the area, and then to develop policies to support these and to introduce a separate diversion from landfill target to monitor performance in terms of preserving landfill voidspace.

Fourth, recovery targets alone may not help to preserve landfill voidspace. Many recovery technologies generate significant residues, which would need to be landfilled.

An essential element of achieving increased recycling and recovery rates for C&I waste will be the measurement and monitoring of progress towards these

(1) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste. Policy W5. Paragraph 2.44.

targets. In order that a system of continuous monitoring and review is established, data is required to demonstrate the effectiveness of programmes and that targets are being met, or at least that improvements are being made.

However, at present, there is limited information available regarding C&I waste. The lack of data on growth rate, composition, life cycle, and impact is hampering the development of an effective waste strategy for this waste stream, and the ability effectively to measure and to monitor progress. As such, any measurement and monitoring of C&I waste targets is likely to be dependant on the quality and availability of data for this waste stream, which at present are poor.

Although the proposed targets are achievable in terms of operational practice, the points raised above show how they will be difficult to influence and that the authorities can have no certainty that they are deliverable. In particular there has been no consideration of financial cost, and clearly this is what drives the management of this waste stream. The Regional Strategy also highlights the current lack of influence that authorities have over this waste stream, and includes a commitment to lobby Government to provide the requisite incentives to change how this waste stream is managed.

It would be more appropriate to remove targets for C&I waste and to have regard to the Regional targets, to leave detailed planning of C&I waste management at the Regional level, and to:

- promote the Plan's policy of encouraging the co-location of MSW and C&I facilities;
- Council's to consider whether there is any merit in a C&I policy related to regional needs;
- include a policy to encourage construction of facilities needed at the Regional level. Which may not necessarily be located in East Sussex or Brighton & Hove, and would expect to be allocated across the Region; and
- consider whether to develop targets for landfill diversion to monitor progress in this area.

1.7

DISCUSSION OF TARGETS – INERT WASTE

The Inspector has recommended an increased target for inert waste recycling as shown in *Table 1.8*. These are higher than those set in the second deposit draft of the WLP and the target originally proposed by SERPLAN, but lower than that recommended by the Submitted Regional Waste Strategy.

Table 1.8 Inspector's Targets for 'Inert' Waste

Year	Inspector Reuse/Recycle	Waste Local Plan (Table 5.7)	South East Submitted (2004) ⁽¹⁾	SERPLAN ⁽²⁾
Waste Type	Inert	Inert	Construction & Demolition Waste	Inert
2010	81%	60% (2011)	83%	50% (2011)

If a higher target than that set in the second deposit draft of the WLP is to be adopted, there needs to be clarity over:

- whether the targets relate to 'inert' waste or construction and demolition material (inert waste being a component of C&D waste that is generally more homogenous and therefore recyclable); and
- whether recycling and reuse includes use of material for landfill engineering, backfill and in registered exempt sites (some claim that these methods are not recycling, but disposal by another means).

High levels of recycling and reuse of construction and demolition type materials have been documented across the UK. Symonds (2004) ⁽³⁾ estimates that the South East Region recycles around 36% of construction and demolition waste as aggregate or soil, with only 14% of this material disposed to landfill (the remainder of material being used in backfill, landfill engineering and exempt sites). More urban areas, such as London, have demonstrated recycling levels as high as 85%. Although there are particular economic circumstances that promote such high achievement (not least very high transport costs and distance from a source of virgin aggregate for construction), these levels could potentially be achieved for inert waste. However, if a target were to be set for construction and demolition waste as a whole, rather than just the inert element, the target should be lower.

1.7.1 Lack of C&D Waste Data

There is a lack of information on a number of specific waste streams, including C&I waste, and also C&D waste. As identified in *Section 1.6*, the lack of data on their quantities, composition, and management methods is hampering the development of effective waste strategies for these waste streams, and the ability to effectively measure and monitor progress.

In relation to C&D waste, the lack of up-to-date information on waste arisings is due primarily to the fact that companies are not legally required to collect such data, only to manage their waste in a responsible way under obligations arising from the Environmental Protection (Duty of Care) Regulations 1991.

(1) South East England Regional Assembly (March 2004) Proposed Alternations to Regional Planning Guidance, South East. Regional Waste Management Strategy. No Time to Waste. Policy W5

(2) As Quoted in Waste Local Plan para 5.46

(3) Symonds (2004) Survey of arisings and use of construction and demolition waste as Aggregate in England in 2003.

The Environment Agency gathered data in relation to both C&I and C&D waste in its National Waste Production Survey in 1998/99. The Agency is planning to undertake a second survey, the results of which could be compared with the 1997 findings, to start to enable longitudinal data analysis, rather than snap shots in time. Defra is also running a programme, under the Waste Implementation Programme (WIP), to ensure effective co-ordination, provision and dissemination of reliable data on different waste streams over the next three years and beyond. However, it is not yet clear when the WIP data strategy will begin to deliver information on C&D waste or when realistically a series of data will be available for analysis.

For ERM to provide detailed comment on the Inspector's proposed target, more detailed analysis is required regarding:

- what type of waste the target relates to (inert or C&D); and
- what is the assumed definition of recycling, ie does inert material used in restoration count towards the recycling rate?

The Key Issues

A number of issues relating to the definition and level of recycling and recovery targets, in Europe, the UK and the South East Region, are to be resolved in the near future. These include: the revision of the Waste Framework Directive; the publication of Waste Strategy 2005; the Panel report on the proposed revisions to RPG9 and subsequent approval by Government; confirmation of the status of anaerobic digestion; and assessment of performance against BVPIs and consideration of further targets. Against such an uncertain backdrop, it would be counter-productive to revise the targets in the WLP, since they may rapidly prove out of date or redundant.

The Inspector has recommended that challenging targets be set for three waste streams. For municipal waste (MSW), he has recommended increasing both the recovery and recycling targets for 2010 and 2015. The recycling and recovery targets set are high, and will be challenging to achieve as:

- the proposed change from household waste to MSW means that the small percentage increases correspond to a large tonnage increase in materials that must be collected for recycling and composting, with significant attendant cost implications;
- the targets will rely heavily on significant investment and commitment from the Waste Collection Authorities, over which the Waste Planning Authority have limited influence;
- the recycling levels suggested exceed current UK, and equal current European best practice, where other materials are frequently counted towards recycling rates;
- the higher recycling levels included within the target will mean that more difficult to reach households will need to be provided with a collection service, less cooperative householders will need to be persuaded to participate and more difficult to recycle materials will need to be separated and collected; and
- increased recovery targets will require additional facilities with significant attendant cost implications.

The Inspector has recommended introduction of targets for commercial and industrial (C&I) waste, in order to promote more sustainable waste management and preserve voidspace. Setting targets may not necessarily achieve this as:

- it may be difficult to encourage applications for such recycling facilities to come forward, even if these are likely to be viewed favourably, given the lack of financial security for such developments;
- even if facilities for recovery and recycling are allocated in the plan; companies within East Sussex and Brighton & Hove may still choose to manage waste outside the county at (potentially cheaper) landfills;

- blanket targets for recycling may not necessarily encourage the types of facility needed to enhance C&I recycling, certain waste streams may not require any intermediate recycling facilities at all and many waste streams will require regionally based facilities rather than locally based facilities;
- unreliable data of this waste stream will mean that the targets will not be able to be monitored; and
- the assessment of the need for C&I waste management facilities is more appropriate to be considered at a Regional level.

An 81% recycling and reuse target has been set for inert waste. This proposed target is of concern for a number of reasons including:

- the lack of clarity over whether these targets relate to the 'inert' or the larger 'construction and demolition' waste stream;
- the lack of reliable data for this waste stream will mean that targets will not be able to be monitored; and
- the lack of clarity over what the terms recycling and reuse can include, makes analysis of the practicability of this target particularly difficult.

1.9

ERM'S RECOMMENDATIONS

ERM's recommendations are as follows:

- the Councils bear in mind the fluid policy and regulatory context that currently exists when considering the Inspector's recommendations, and give weight to the expected resolution of issues raised in this report;
- to reject the Inspector's MSW recycling target for 2005;
- to retain household waste recycling and composting targets, rather than to adopt targets based on MSW;
- the Councils take into account the practicability issues raised in this report when considering the Inspector's recommendations for the 2010 & 2015 recycling targets;
- the Councils take into account the practicability issues raised in this report when considering the 2015 MSW recovery target;
- the Councils reconsider setting targets for C&I waste, and consider instead introducing policies: that take full account of Regional targets ; and that view favourably applications for combined C&I and MSW facilities; and
- that the Councils clarify the type of waste that the C&D/inert target relates to and what recycling/recovery will include. A lower target should be set if the waste type is to include all C&D.

The reports that we have drawn from include the following:

- *Aylesford Newsprint, 2000, Achieving Recycling Targets*
- *CERNO Consultancy Services Ltd., 2001, Recycling Practice throughout the World, produced on behalf of Brighton & Hove City Council.*
- *David Davies Associates, 2004, High Diversion of Municipal Waste: is it achievable (Volumes I, II and III), a report on behalf of the Resource Recovery Forum.*
- *David Davis, 2003, Smoke and Mirrors in Waste Management – Exploding Some Myths. Waste Management World, ISWA, May-June*
- *Defra, 2004, Municipal Waste Management Survey 2002/03.*
- *Defra, 2003, Government Response to Strategy Unit report “Waste Not Want Not”*
- *East Sussex and Brighton and Hove, 2002 Waste Local Plan, 2nd Deposit Draft*
- *East Sussex and Brighton and Hove, 2004, Waste Local Plan Inspector’s Report, Part 6, Policy WLP1 (c)*
- *Environment Agency, 1998/99, C&I Waste Survey*
- *Hogg, D., Mansell, D., 2004, Maximising recycling Rates: tackling residuals, research report on behalf of the Community recycling Network.*
- *South East Regional Assembly, 2004, Proposed Alterations to Regional Planning Guidance, South East – Regional Waste Management Strategy. No Time to Waste*
- *South East Regional Assembly, 2003, No Time to Waste – Regional Waste Management Strategy Consultation Draft*
- *Strategy Unit, 2002, Waste Not Want Not. A Strategy for Tackling the Waste Problem in England.*
- *Symonds, 2002, Survey of Arisings and Use of Construction and Demolition Waste, 2001*
- *Waste Strategy 2000 England and Wales, Part 1*

- *AEA Technology, 2001, Assessment of Kerbside Collection Schemes for Dry Recyclables, produced on behalf of the Resource Recovery Forum.*
- *Aylesford Newsprint , 2004, Recycling Atlas – England and Wales.*
- *Environmental Resources Management, 2000, Research Study on International Recycling Experience. Report for Defra.*
- *Friends of the Earth, 2004, Doorstep recycling in England, a survey, public briefing note.*

- *Hummel, J., 2004, Meeting Statutory Recycling Targets Through Cost Effective Kerbside Expansion, a step by step guide for local authorities, prepared through the Open University on behalf of the Onyx Environment Trust.*
- *MORI Social Research Institute, 2002, Public Attitudes Towards Recycling and Waste Management, Research Study Conducted for the Strategy Unit (Cabinet Office).*
- *South East Regional Assembly, 2004, Analysis of Practicably Achievable Recycling and Composting Rates.*
- *Tucker, P., 2004, Understanding Recycling Behaviour, University of Paisley Research report.*
- *Tucker, P., and Speirs, D., 2002, Model Forecasts of Recycling Participation Rates and Material Capture rates for Possible Future Recycling Scenarios, report to the Cabinet Office Strategy Unit.*

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